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the CAS Roles thesaurus (/RL field) in this file.

=> d stat que
L3             5 SEA FILE=REGISTRY ANALYTE/BI
L4            33 SEA FILE=REGISTRY NITROCELLULOSE/BI
L10        29502 SEA FILE=HCAPLUS L3 OR ANALYTE?
L11        26306 SEA FILE=HCAPLUS L4 OR NITROCELLULOSE?
L15        45276 SEA FILE=HCAPLUS (APPARAT? OR DEVICE? OR EQUIPMENT?) (L)(?ASSAY
                 ? OR ANALY?)
L16         2457 SEA FILE=HCAPLUS L15 (L) L10
L17          469 SEA FILE=HCAPLUS L16 AND (L11 OR MEMBRANE?)
L18          145 SEA FILE=HCAPLUS L17 AND IMMOBIL?
L19           27 SEA FILE=HCAPLUS L18 AND ABSORB?


=> d ibib abs hitrn l19 1-27

L19  ANSWER 1 OF 27  HCAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         2002:505006  HCAPLUS
DOCUMENT NUMBER:          137:59849
TITLE:                    Flow through assay device,
                          diagnostic kit comprising said assay
                          device and use of said assay
                          device in the detection of an analyte
                          present in a sample
INVENTOR(S):              Fannes, France
PATENT ASSIGNEE(S):       Bio A.R.T. Bvba, Belg.
SOURCE:                   PCT Int. Appl., 119 pp.
```

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002052263	A1	20020704	WO 2001-EP15385	20011221

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: EP 2000-870321 A 20001222
US 2001-266236P P 20010202

AB The present invention relates to an **assay device** for testing the presence of an **analyte** in a given sample comprising: a multilayer support whereon a first **analyte**-binding compd. or **analyte**-binding complex, able to bind said **analyte** present in said sample, is **immobilized**, whereby said **analyte** is able to bind a second enzyme labeled **analyte** -binding compd. or enzyme labeled **analyte**-binding complex forming a sandwich complex, whereby said sandwich complex is able to generate upon contact with a suitable pptg. substrate for said enzyme-label a colored deposit in a one step procedure. The invention also relates to a diagnostic kit or a method for the detection of an **analyte** in any medium. Descriptions of the app. assembly and operation are given.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(flow through **assay device**, diagnostic kit comprising said **assay device** and use of said **assay device** in detection of **analyte** present in a sample)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:292049 HCAPLUS
DOCUMENT NUMBER: 136:306420
TITLE: Immunochromatographic analysis apparatus
INVENTOR(S): Saito, Noriyuki; Ichiguchi, Takeshi; Aki, Masako; Amatsuji, Yasuo
PATENT ASSIGNEE(S): International Reagents Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002116206	A2	20020419	JP 2000-310971	20001011

AB Provided is a immunochromatog. method and app. for **analyte** detn. characterized by a special design to prevent countercurrent and to stabilize result signal that last for a long time. The immunochromatog. app. comprises sample-adding part, signal-detecting part, openings, capillary effect-causing part, labeled ligand-maintaining part, test strip, **absorbent** part, and solid support (diagrams presented). The immunochromatog. **device** is esp. useful for clin. diagnosis, pharmaceutical anal., biochem. anal., and food anal. A such **device** comprising **nitrocellulose membrane-immobilized** and color particle-labeled monoclonal antibody was prepd. for detecting influenza virus.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); DGN (Diagnostic use); BIOL (Biological study); USES (Uses)
(immunochromatog. anal. app. comprising design for preventing countercurrent and stabilizing result signal)

L19 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:213758 HCAPLUS
DOCUMENT NUMBER: 136:213171
TITLE: Liposome-enhanced test device and method
INVENTOR(S): Durst, Richard Allen; Montagna, Richard A.; Baumner, Antje J.; Siebert, Sui Ti A.; Rule, Geoffrey S.
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Innovative Biotechnologies International, Inc.
SOURCE: U.S., 30 pp., Cont.-in-part of U.S. 5,958,791.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6358752	B1	20020319	US 1999-315576	19990520
US 5958791	A	19990928	US 1996-722901	19960927
WO 2000072019	A2	20001130	WO 2000-US13592	20000518
WO 2000072019	A3	20010913		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1996-722901 A2 19960927
US 1998-86190P P 19980521

US 1998-106122P P 19981029
US 1999-315576 A 19990520

AB A test **device** and method for detecting or quantifying an **analyte** in a test sample employs an interdigitated electrode array and electroactive marker-encapsulating liposomes for signal generation and detection. The test **device** includes a contact portion on a first **absorbent** material, a capture portion either on the first **absorbent** material, or on a second **absorbent** material in fluid flow contact with the first **absorbent** material. The capture portion has a binding material specific for a portion of the **analyte** bound thereto. The **device** further includes an electrode array including first and second conductors each having a plurality of fingers, wherein the fingers of the conductors are interdigitated. The electrode array is positioned to induce redox cycling of an electroactive marker released either in or beyond the capture portion, depending upon whether direct (proportional) or indirect (inversely proportional) detection or measurement is desired. In the method of the invention, the test sample is applied to the contact portion, and allowed to migrate along the **absorbent** material(s) into the capture portion. Either before or after the migration, the test sample is contacted with a conjugate of liposomes and a second binding material for the **analyte**. To the extent that **analyte** is present in the sample, the conjugate is bound in the capture portion. By applying a voltage across the conductors, redox cycling of the marker is induced and a current is generated.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:172233 HCAPLUS
DOCUMENT NUMBER: 136:213161
TITLE: Capillary array and related methods
INVENTOR(S): Fulwyler, Mack J.; Gray, Joe W.
PATENT ASSIGNEE(S): The Regents of the University of California, USA
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018949	A2	20020307	WO 2001-US25775	20010817

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-652873 A 20000831

AB The invention provides methods and **devices** for detecting the presence of one or more target **analytes** in a sample employing a channel having affixed therein one or more binding partners for each target **analyte**. **Assays** are carried out by transporting the sample through the channel to each successive binding partner so that target **analyte** present in said sample binds to the corresponding binding partner. The sample is then transported beyond the binding partner(s), followed by detection of any target **analyte** bound to each binding partner. In one embodiment, binding efficiency is increased by the use of segmented transport, wherein a first bolus or bubble of a fluid that is immiscible with the sample precedes the sample during transport and a second bolus or bubble of a fluid that is immiscible with the sample follows the sample. Many configurations are possible for the **device** of the invention. A preferred **device** includes : a substrate with a channel formed in its surface, and a cover element that overlies and seals the channel. Binding partner(s) are affixed to the surface of the cover element facing the channel lumen. A capillary-based array electrophoretic hybridization system is described.

L19 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:817062 HCAPLUS
DOCUMENT NUMBER: 135:341151
TITLE: Device and method for fluid sample diagnostics with multiple independent solid phase flow paths
INVENTOR(S): Clark, Scott M.; Suva, Robert H.; Kepron, Michael R.; Barski, Stanislaw, Jr.; Workman, Erwin F., Jr.
PATENT ASSIGNEE(S): Idexx Laboratories, Inc., USA
SOURCE: PCT Int. Appl., 67 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001084153	A2	20011108	WO 2001-US11773	20010411

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-551496 A 20000418

AB The invention concerns **devices** and methods for performing **assays** to det. the presence or quantity of a specific **analyte** of interest in a fluid sample. In **devices** according to this invention two sep. flow paths are established sequentially in the **device** with a single user activation step. The first flow path delivers the **analyte** of interest (if present

in the sample) and conjugate sol. binding reagents to the solid phase. If **analyte** is present, an **analyte**:conjugate complex is formed and **immobilized**. The vol. of sample delivered by this first path is detd. by the **absorbent** capacity of the solid phase, and not by the amt. of sample added to the **device**, relieving the user from the necessity of measuring the sample. The sample/conjugate mixt. is prevented from entering the second flow path because the capillarity and the surface energy of the second flow path prevent it from being wetted by this mixt. The second flow path allows a wash reagent to remove unbound conjugate and sample from the solid phase to the **absorbant**, and optionally to deliver detection reagents. Diagrams describing the app. are given.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(device and method for fluid sample diagnostics with multiple independent solid phase flow paths)

L19 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:693807 HCAPLUS
DOCUMENT NUMBER: 135:254051
TITLE: **Assay devices** and methods of **analyte** detection
INVENTOR(S): Guan, Ming; Chen, Hsiao Ying; Chow, Theresa Puifun; Pereira, Adrian Rennie; Mun, Ping Kuen
PATENT ASSIGNEE(S): Singapore
SOURCE: U.S. Pat. Appl. Publ., 23 pp., Cont.-in-part of U.S. Ser. No. 493,408.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2001023076	A1	20010920	US 2001-771479	20010125
US 6316205	B1	20011113	US 2000-493408	20000128

PRIORITY APPLN. INFO.: US 2000-493408 A2 20000128

AB **Assay devices**, kits, and methods for detection of one or more **analytes** in a sample are provided. The **assay device** features the controlled release of reagents and hence is particularly suitable for binding **assays** such as **immunoassays**. The **assay device** achieves greater sensitivity than conventional rapid test **assays**, leading to stronger and/or more stable visual signals than those produced by conventional **devices**, easier interpretation of results, and reduced occurrence of indeterminate results. The **device** can be used for detecting **analyte** in a variety of biol. samples without the need for conventional sample filtration techniques, and thus is suitable for use by untrained personnel without specialized **equipment**. In addn., the **device** can be used to simultaneously **analyze** a no. of **analytes** using a single sample.

L19 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:566871 HCAPLUS
DOCUMENT NUMBER: 135:134266
TITLE: Immunochromatographic assay devices with separators
INVENTOR(S): Guan, Ming; Chen, Hsiao Ying; Chow, Theresa Puifun; Pereira, Adrian Rennie; Mun, Ping Kuen
PATENT ASSIGNEE(S): Genelabs Diagnostics Pte Ltd., Singapore
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001055723	A1	20010802	WO 2001-US2554	20010125
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6316205	B1	20011113	US 2000-493408	20000128

PRIORITY APPLN. INFO.: US 2000-493408 A 20000128

AB **Assay devices**, kits, and methods for detection of one or more **analytes** in a sample are provided. The **assay device** features the controlled release of reagents and hence is particularly suitable for binding **assays** such as **immunoassays**. The **assay device** achieves greater sensitivity than conventional rapid test **assays**, leading to stronger and/or more stable visual signals than those produced by conventional **devices**, easier interpretation of results, and reduced occurrence of indeterminate results. The **device** can be used for detecting **analyte** in a variety of biol. samples without the need for conventional sample filtration techniques, and thus is suitable for use by untrained personnel without specialized **equipment**. In addn., the **device** can be used to simultaneously **analyze** a no. of **analytes** using a single sample.

IT **9004-70-0, Nitrocellulose**
RL: ARG (Analytical reagent use); DEV (Device component use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**membranes**; immunochromatog. assay devices with separators)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:435366 HCAPLUS
DOCUMENT NUMBER: 135:2532

TITLE: Assay
INVENTOR(S): Smart, David; Considine, Patrick; Eagleton, Marie
PATENT ASSIGNEE(S): Diagnology Limited, UK
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001042788	A2	20010614	WO 2000-GB4714	20001211
WO 2001042788	A3	20020110		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: GB 1999-29272 A 19991210

AB The present invention provides an **assay device** for detection of an **analyte** which is a member of a specific binding partner in a sample, the **assay device** comprising a sample application zone, a preabsorbing zone and a specific binding zone. The **device** can provide a HSV-2 specific **assay** by preabsorbing HSV-1 antibodies in the preabsorbing zone.

L19 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:397169 HCAPLUS
DOCUMENT NUMBER: 135:2526
TITLE: **Devices** and methods for detecting **analytes** using electrosensor having capture reagent
INVENTOR(S): Zhang, Honghua
PATENT ASSIGNEE(S): Biotronic Technologies, Inc., USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001038873	A2	20010531	WO 2000-US29748	20001027

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU,

ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRIORITY APPLN. INFO.: US 1999-167409P P 19991124
AB The present invention relates to **devices** comprising electrosensors contg. capture reagents, their prepn., and their use for detecting preferably, quant. measurement, of **analyte** in a liq. sample. In particular, the invention relates to an enzyme electrosensor, e.g., electroimmunosensor, **device** for electrochem. detection and preferably, real-time measurement, which is suitable for use at point-of-care settings by unskilled personnel. Monoclonal antibody to prostate specific antigen (PSA) or to .alpha.-fetoprotein (AFP) was directly **immobilized** on a carbon sensor surface by applying a buffered antibody soln. contg. isopropanol. Immunosensors were assembled and used to det. PSA or AFP.
IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); USES (Uses)
(as support; **devices** and methods for detecting **analytes** using electrosensor having capture reagent)

L19 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:186023 HCAPLUS
DOCUMENT NUMBER: 134:219338
TITLE: Systems including an immunoaffinity cartridge and a preconcentrator cartridge and a mass spectrometer for detecting analytes
INVENTOR(S): Naylor, Stephen; O'brien, John F.; Bergen, H. Robert, III
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001018540	A1	20010315	WO 2000-US24602	20000908
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002055184	A1	20020509	US 1999-391432	19990908

PRIORITY APPLN. INFO.: US 1999-391432 A1 19990908
AB Systems for detecting analytes that include an immunoaffinity cartridge, a preconcentrator cartridge, and a mass spectrometer are described. The system also can include a **membrane** cartridge. Methods for

detecting the presence or absence of an analyte in a biol. sample also are described. Serum samples of patients with carbohydrate-deficient glycoprotein syndrome (CDGS) (both phosphomannomutase- and phosphomannoisomerase-deficient) and of chronic alcoholics were analyzed using a system with an immunoaffinity cartridge having **immobilized** rabbit antitransferrin antibodies, a preconcentrator cartridge and an electrospray ionization mass spectrometer. Transferrin immunopurified from the CDGS serum revealed three distinct species at 79561, 77353, and 75145 Da; while that from the chronic alcoholics showed two species at 79561 and 77353 Da. In normal serum, only a single ion is detected at 79561 Da.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:842376 HCAPLUS
DOCUMENT NUMBER: 134:14901
TITLE: Liposome-enhanced test device and method
INVENTOR(S): Durst, Richard Allen; Montagna, Richard A.; Baumner, Antje J.; Siebert, Sui Ti A.; Rule, Geoffrey S.
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA; Innovative Biotechnologies International, Inc.
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000072019	A2	20001130	WO 2000-US13592	20000518
WO 2000072019	A3	20010913		
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6358752	B1	20020319	US 1999-315576	19990520

PRIORITY APPLN. INFO.:
US 1999-315576 A 19990520
US 1996-722901 A2 19960927
US 1998-86190P P 19980521
US 1998-106122P P 19981029

AB A test **device** and method for detecting or quantifying an **analyte** in a test sample employs an interdigitated electrode array and electroactive marker-encapsulating liposomes for signal generation and detection. The test **device** includes a contact portion on a first **absorbent** material, a capture portion either on the first **absorbent** material, or on a second **absorbent** material in fluid flow contact with the first **absorbent** material. The

capture portion has a binding material specific for a portion of the **analyte** bound thereto. The **device** further includes an electrode array including first and second conductors each having a plurality of fingers, wherein the fingers of the conductors are interdigitated. The electrode array is positioned to induce redox cycling of an electroactive marker released either in or beyond the capture portion, depending upon whether direct (proportional) or indirect (inversely proportional) detection or measurement is desired. In the method of the invention, the test sample is applied to the contact portion, and allowed to migrate along the **absorbent** material(s) into the capture portion. Either before or after the migration, the test sample is contacted with a conjugate of liposomes and a second binding material for the **analyte**. To the extent that **analyte** is present in the sample, the conjugate is bound in the capture portion. By applying a voltage across the conductors, redox cycling of the marker is induced and a current is generated. Cryptosporidium parvum hsp70 mRNA was detected using **immobilized** probe test strips placed on interdigitated ultramicroelectrode arrays. Liposomes coupled to specific oligonucleotides were used in the enhancement.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); USES (Uses)
(liposome-enhanced test device and method)

L19 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:241642 HCAPLUS
DOCUMENT NUMBER: 132:248252
TITLE: Process and **apparatus** for the in vitro detection of multiple **analytes**
INVENTOR(S): Patel, Chandravadan
PATENT ASSIGNEE(S): Abp Diagnostics Ltd., UK
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000020862	A1	20000413	WO 1999-GB3261	19991001
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
GB 2342443	A1	20000412	GB 1998-21548	19981002
AU 9961099	A1	20000426	AU 1999-61099	19991001
EP 1119770	A1	20010801	EP 1999-947725	19991001
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

BR 9915017 A 20010814 BR 1999-15017 19991001
PRIORITY APPLN. INFO.: GB 1998-21548 A 19981002
WO 1999-GB3261 W 19991001

AB A method and a system for detecting in a sample (serum, plasma, whole blood, saliva or urine) of human or animal origin the presence or absence of a single or multiple **analyte** is provided. The detection is simple and rapid. The detection system comprises a flow-through plastic **device** contg. an **absorbent** pad with an affinity **membrane**. The **device** has specific areas of the **membrane** in which antigenic materials are **immobilized**. Each **device** has a control substance in one of the areas to act as a quality control material to check that the **device** is functioning correctly. In the case of antibody detection, the control material used is normally human IgG. In the case of antigen detection, the control material can be a specific antigen. In a multi-**analyte** detection system, any one of the discrete areas can be used for a specific control if desired. Also provided is method and app. for the detection in a sample of the presence or absence of antigenic substances, antibodies or haptens using the above mentioned cassette **device**. It can be used for screening of the TORCH panel, for screening of a drugs of abuse panel, for auto-immune antibody screening, for gastroenterol. profile screening (H. Pylori, Parital cells, LKMI, M2), HIV testing, Microbacterium screening, screening for infectious diseases in birds and animals and other panel tests.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:84471 HCAPLUS
DOCUMENT NUMBER: 132:104998
TITLE: Transparent flow through **membrane** for dry reagent analytical devices
INVENTOR(S): Albarella, James P.; Hildenbrand, Karl-Heinz; Lin, Spencer H.; Pugia, Michael J.; Schulman, Lloyd S.
PATENT ASSIGNEE(S): Bayer Corporation, USA
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 977034	A2	20000202	EP 1999-113655	19990714
EP 977034	A3	20000223		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000046826	A2	20000218	JP 1999-207731	19990722
AU 9941102	A1	20000217	AU 1999-41102	19990723
US 6187268	B1	20010213	US 1999-405116	19990927

PRIORITY APPLN. INFO.: US 1998-123225 A 19980727

AB Disclosed is a diagnostic **device** for the colorimetric detection of an **analyte** in a test fluid. The **device** is a dry

reagent layer which is overcoated with a transparent, fluid permeable **membrane**. The **membrane** is made up of a combination of a water dispersible and a water sol. polymer. The **membrane** may contain a surfactant and a thickener.

L19 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:781501 HCAPLUS
DOCUMENT NUMBER: 132:116704
TITLE: Analysis of optochemical **absorbance** sensors based on bidimensional planar ARROW microoptics
AUTHOR(S): Garces, I.; Villuendas, F.; Salinas, I.; Alonso, J.; Puyol, M.; Dominguez, C.; Llobera, A.
CORPORATE SOURCE: Departamento de Ingenieria Electronica y Comunicaciones, Universidad de Zaragoza, Zaragoza, Spain
SOURCE: Sensors and Actuators, B: Chemical (1999), B60(2-3), 191-199
CODEN: SABCEB; ISSN: 0925-4005
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A new approach for developing **absorbance** optochem. sensors is presented. It is based on a planar microoptic circuit where an optochem. active **membrane**, which responds selectively to a compd., is deposited in the **device**, yielding a part of the guiding planar structure. Light is propagated through the **membrane**, which changes its spectral absorption properties and controls the selectivity of the measurements by several **immobilized** compds. This way, high sensitivity of the **device** can be easily obtained due to relatively long light paths through the **membrane**, and low response times can be achieved as the **analyte** diffusion occurs perpendicularly to the light path and through a thin **membrane**. Exptl. results on measurements of the concn. of a specific ion in soln. using the fabricated sensors are also presented.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:244810 HCAPLUS
DOCUMENT NUMBER: 130:281137
TITLE: Test **device** for determination of antibiotics and other **analytes** in liquid dairy products by capillary migration
INVENTOR(S): Degelaen, Jacques; Frere, Jean-Marie; Granier, Benoit; Joris, Bernard
PATENT ASSIGNEE(S): UCB Bioproducts, S.A., Belg.
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

WO 9918439		A1	19990415	WO 1998-BE147	19981006
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
BE 1011487		A3	19991005	BE 1997-807	19971007
BE 1012049		A6	20000404	BE 1998-485	19980625
CA 2305774		AA	19990415	CA 1998-2305774	19981006
AU 9894248		A1	19990427	AU 1998-94248	19981006
AU 738143		B2	20010913		
EP 1023603		A1	20000802	EP 1998-947242	19981006
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
BR 9812876		A	20000808	BR 1998-12876	19981006
JP 2001519533		T2	20011023	JP 2000-515181	19981006
WO 9967416		A2	19991229	WO 1999-EP2166	19990330
WO 9967416		A3	20000427		
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 9937032		A1	20000110	AU 1999-37032	19990330
AU 737906		B2	20010906		
EP 1082451		A2	20010314	EP 1999-919158	19990330
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
BR 9911500		A	20010320	BR 1999-11500	19990330
JP 2002518062		T2	20020625	JP 2000-556056	19990330
NO 2000001817		A	20000407	NO 2000-1817	20000407
NO 2000006574		A	20010215	NO 2000-6574	20001221

PRIORITY APPLN. INFO.:	BE 1997-807	A	19971007
	BE 1998-485	A	19980625
	WO 1998-BE147	W	19981006
	WO 1999-EP2166	W	19990330

AB A testing **device** for detg. **analytes** in a liq. dairy product by capillary migration of the dairy product comprises a solid support between the ends of which are fixed, successively: a **membrane** for purifn. of the the **analyzed** liq., a **membrane** on which one or several capturing substances are **immobilized**, and an **absorbing membrane**. Antibiotics in milk may be detected and quantified by using the testing **device** or a testing kit comprising the testing **device**. Thus, .beta.-lactam antibiotics are detectable by using **immunoassays** incorporating Actinomadura R39 D-alanyl-D-alanine-

carboxypeptidase (biotinylated and coupled to gold particles) or Bacillus licheniformis BlaR-CTD receptors.
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:96091 HCAPLUS
DOCUMENT NUMBER: 130:165137
TITLE: **Device** and method for obtaining clinically significant **analyte** ratios
INVENTOR(S): Kuo, Hai-Hang; Miller, Carol A.; Wijesuriya, Dayaweere; Yip, Meitak Teresa; Zimmerle, Chris T.
PATENT ASSIGNEE(S): Bayer Corporation, USA
SOURCE: Eur. Pat. Appl., 18 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 895084	A2	19990203	EP 1998-112964	19980713
EP 895084	A3	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AU 9877440	A1	19990204	AU 1998-77440	19980722
AU 729380	B2	20010201		
JP 11083856	A2	19990326	JP 1998-206193	19980722

PRIORITY APPLN. INFO.: US 1997-900586 A 19970725
AB Disclosed is a method for detg. the concn. of an analyte in a sample of body fluid. The method involves contacting the body fluid sample with a test strip contg. mobile, labeled, specific binding partner for the analyte. The test fluid, analyte, and any complex formed by interaction of the analyte and labeled specific binding partner flow through the strip by capillarity. The strip contains at least one zone for capture of the labeled specific binding partner and at least one sep. zone for retention of the analyte/labeled specific binding partner complex. By detg. the magnitude of the signal from the detectable label in the capture zone(s) and retention zone(s) and detg. a final response signal by correlating signals using an algorithm and no. of zones chosen in a manner that provides a final response signal best suited for the particular assay, the concn. of the analyte can be detd. with greater precision. A test strip for the detn. of creatinine and deoxypyridinoline contained six distinct areas assembled onto a polystyrene backing of 101.6 X 5.0 mm. Area 1 was a creatinine pad made from Whatman 3 mm filter paper contg. reagents for the colorimetric detn. of creatinine. Area 2 was a buffer pad for buffering the urine samples. Area 3 contained gold sol-labeled anti-deoxypyridinoline antibody. Area 4 contained 3 capture bands of **immobilized** deoxypyridinoline. Area 5 had an anti-IgG collection band. Area 6 was an **absorbant** pad. Areas 1 and 2 were dipped into test urine for 3 s and the strip was placed on the read table of a CLINITEK 50 reflectance spectrometer for anal.
IT **9004-70-0, Nitrocellulose**

RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(capture and detection reagents **immobilized** on, in test strip for creatinine and deoxypyridinoline detn.; **device** and method for obtaining clin. significant **analyte** ratios)

L19 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:352620 HCAPLUS
DOCUMENT NUMBER: 129:25350
TITLE: Liposome-enhanced immunoaggregation assay and test device
INVENTOR(S): Durst, Richard Allen; Roberts, Matthew A.
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA
SOURCE: U.S., 39 pp., Cont.-in-part of U.S. Ser. No. 135,741.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5756362	A	19980526	US 1995-382482	19950201
US 5789154	A	19980804	US 1993-135741	19931012
US 5753519	A	19980519	US 1995-467004	19950606
CA 2211132	AA	19960808	CA 1996-2211132	19960129
WO 9624062	A1	19960808	WO 1996-US1617	19960129
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9652959	A1	19960821	AU 1996-52959	19960129
AU 707803	B2	19990722		
EP 807255	A1	19971119	EP 1996-909480	19960129
R: DE, FR, GB				
US 6086748	A	20000711	US 1998-27324	19980220

PRIORITY APPLN. INFO.:
US 1993-135741 A2 19931012
US 1995-382482 A3 19950201
US 1995-467004 A3 19950606
WO 1996-US1617 W 19960129

AB A test **device** for detecting or quantifying an **analyte** in a test sample includes an **absorbent** material having sep. contact and measurement portions. The contact portion is positioned at or proximate to a first end of the **absorbent** material. The measurement portion has a receptor for a conjugate of an **analyte** analog and marker-encapsulating liposomes. In a method for using the test **device**, a binding material specific for the **analyte** is combined with the liposome-**analyte** analog conjugate and the test sample to form a test mixt. The mixt. is incubated for a time sufficient to permit competition between any **analyte** present and the conjugate for the binding material. Following incubation, the mixt. is allowed to traverse the **absorbent** material from the contact portion through the measurement portion of the **absorbent** material. Following traversal by the test mixt., the presence or amt. of marker in the measurement portion of the **absorbent** material is then detected and correlated with the presence or amt., resp., of the

analyte in the sample. Liposomes encapsulating an electroactive marker are used in conjunction with a test **device** as described above but which includes an electrochem. measurement portion in place of the measurement portion described above. Test **devices** and methods employing electrochem. detection or quantification of an electroactive marker corresponding to the amt. of **analyte** in a sample may be either amperometric or potentiometric. A liposome immunocompetition **assay** used polychlorinated biphenyl (PCB)-tagged liposomes and a **nitrocellulose** test strip with **immobilized** anti-PCB antibodies and antibiotin capture zones in sequence. The liposomes encapsulated sulforhodamine B dye and were made from a mixt. of dipalmitoylphosphatidylcholine (DPPC), cholesterol, dipalmitoylphosphatidylglycerol (DPPG), 2-chlorobiphenyl-dipalmitoylphosphatidylethanolamine (DPPE) conjugate, and biotin-x-DPPE conjugate. The **assay** performance for two **analytes**, PCB and Alachlor, was detd.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**membrane**; liposome-enhanced immunoaggregation assay and test device)

L19 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:448072 HCAPLUS
DOCUMENT NUMBER: 127:64916
TITLE: Chemiluminescent **assay** methods and **devices** for detecting target **analytes**
INVENTOR(S): Childs, Mary Ann; Mcclintock, Joseph A.; Shipman, Gregory K.; Trainor, William P.; Gray, Erick; Bernstein, David; Laub, David W.; Kimms, Lyle K.; Chung, Craig
PATENT ASSIGNEE(S): Universal Healthwatch, Inc., USA; Childs, Mary Ann; Mcclintock, Joseph A.; Shipman, Gregory K.; Trainor, William P.; Gray, Erick; Bernstein, David; Laub, David W.; Kimms, Lyle K.; Chung, Craig
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9719353	A1	19970529	WO 1996-US18443	19961118
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5783399	A	19980721	US 1995-560094	19951117

AU 9677367	A1	19970611	AU 1996-77367	19961118
EP 882230	A1	19981209	EP 1996-940503	19961118
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000500568	T2	20000118	JP 1997-516901	19961118
PRIORITY APPLN. INFO.:			US 1995-560094	19951117
			US 1995-577624	19951222
			WO 1996-US18443	19961118

AB A sampling-test **device** and a method for its use provide rapid and easy detection of **analytes**. The **device** and method utilize chemiluminescence for sensitive detection and should find applications in such areas as the detection of bacteria on surfaces. The test **device** comprises a sampling portion and a reagent portion. The sampling portion is an adsorbent that collects **analytes** from a test sample such as a surface or vol. of a liq. The reagent portion comprises an adsorbent material that holds .gtoreq.1 chemiluminescent components such as luciferase enzyme and cofactors in a dry state. The **device** optionally comprises a movable shield to protect the sampling portion from cross contamination. In a preferred embodiment the sampling portion is swabbed over a contaminated surface. A bacteriolytic soln. is then added to the adsorbent and releases ATP from sampled bacteria found there. The ATP diffuses into the reagent portion of the **device**. As it diffuses, luciferase and other cofactors present in the reagent portion react with it. Light is produced by chemiluminescence in response to bacteria originally present in the sample. Light can be detected, for example, electronically by insertion of the **device** into a mating light detector box, or chem., for example, by an optional light detection portion comprised of a film such as an instant photog. film.

L19 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:107358 HCAPLUS
DOCUMENT NUMBER: 126:115380
TITLE: Competitive immunoassay device
INVENTOR(S): Chandler, Howard M.
PATENT ASSIGNEE(S): Smithkline Diagnostics, Inc., USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9638720	A1	19961205	WO 1996-US7576	19960523
W: AU, CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5648274	A	19970715	US 1995-459466	19950602
CA 2221120	AA	19961205	CA 1996-2221120	19960523
AU 9659288	A1	19961218	AU 1996-59288	19960523
AU 703468	B2	19990325		
EP 852005	A1	19980708	EP 1996-916591	19960523
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				

CN 1191603	A	19980826	CN 1996-195714		19960523
JP 11507125	T2	19990622	JP 1996-536564		19960523
PRIORITY APPLN. INFO.:			US 1995-459466	A	19950602
			US 1991-706639	A2	19910529
			US 1992-888831	B2	19920527
			US 1993-40430	A2	19930331
			US 1994-194793	A1	19940210
			WO 1996-US7576	W	19960523

AB A chromatog. **assay device** for detection and/or detn. of an **analyte** in a competitive **immunoassay** gives a semiquant. or quant. indication of **analyte** concn. in a single **assay device** while also giving a pos. indication that flow has occurred properly through the **device**. In one form, the **device** comprises a first opposable component including a sample prepn. zone and an **absorber**; and a second opposable component including a first chromatog. medium with capture and detection zones, a second chromatog. medium with a comparison zone, and a comparison label zone. The use of opposable components provides optimum containment of possibly contaminated blood samples, such as those contg. HIV or hepatitis virus. In one typical embodiment of this **device**, the **analyte** is a .beta.-lactam antibiotic, the first zone of **immobilized analyte** or analog thereof is 7-aminocephalosporanic acid conjugated to Ig, and the labeled specific binding partner for the **analyte** conjugated to the first member of the auxiliary specific binding pair is biotinylated penicillin-binding protein. An example is given of the detection of .beta.-lactam antibiotics (penicillins, ampicillin, or cephalosporins) in milk.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(competitive immunoassay device)

L19 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1997:311 HCAPLUS
DOCUMENT NUMBER: 126:27291
TITLE: Diagnostic detection device and method
INVENTOR(S): Mazareth, Albert; Boyle, Mary Beth; Cheng, Yeq-Shun
PATENT ASSIGNEE(S): Carter Wallace, Inc., USA
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635123	A1	19961107	WO 1996-US6087	19960501
W: AU, CA, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6319676	B1	20011120	US 1995-432894	19950502
US 2001051350	A1	20011213		
CA 2218995	AA	19961107	CA 1996-2218995	19960501
AU 9658521	A1	19961121	AU 1996-58521	19960501

AU 709403 B2 19990826
EP 823972 A1 19980218 EP 1996-920120 19960501
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
JP 10511774 T2 19981110 JP 1996-533463 19960501
US 2002042082 A1 20020411 US 2001-951007 20010912
PRIORITY APPLN. INFO.: US 1995-432894 A 19950502
WO 1996-US6087 W 19960501

AB The invention provides an improved test cell for detecting the presence of an **analyte** in a liq. sample. Such a test cell is esp. useful for the detn. of chorionic gonadotropin in human urine in pregnancy testing. The **device** has an elongate casing defining a liq. sample inlet, a reservoir vol., a test vol., and a window through the casing at the test vol. Disposed within the cell is a sample **absorbent**, a novel biphasic substrate and a reservoir, together capable of transporting an aq. soln. within the casing along a flow path extending from the sample inlet through the test vol. and into the reservoir vol. The invention further comprises a method for detecting the presence of an **analyte** in a liq. sample using the **device** and a biphasic chromatog. material for carrying out the method. The release medium is, e.g., **absorbent** paper and holds a band of, e.g., antibody-metal sol, and a band of, e.g., antibody-biotin which bind to first and second epitopes, resp., of the **analyte**. The capture site is, e.g., **nitrocellulose** or nylon, holding an **immobilized** capture component, e.g., streptavidin. A control site may be present. The release medium and capture site are joined by overlapping to form the chromatog. substrate.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(lateral-flow test cell with biphasic chromatog. substrate for body fluid anal. and pregnancy test)

L19 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:599060 HCAPLUS
DOCUMENT NUMBER: 125:214678
TITLE: Liposome-enhanced immunoaggregation assay and test device
INVENTOR(S): Durst, Richard A.; Roberts, Matthew A.
PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., USA
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9624062	A1	19960808	WO 1996-US1617	19960129
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5756362	A	19980526	US 1995-382482	19950201
AU 9652959	A1	19960821	AU 1996-52959	19960129

AU 707803 B2 19990722
EP 807255 A1 19971119 EP 1996-909480 19960129
R: DE, FR, GB
PRIORITY APPLN. INFO.: US 1995-382482 A 19950201
US 1993-135741 A2 19931012
WO 1996-US1617 W 19960129

AB A test **device** and esp. a single-use test strip are disclosed for detecting or quantifying an **analyte** (e.g., alachlor, a PCB, dioxin, a hormone, a vitamin, a metabolite, a drug) in a test sample, including an **absorbent** material having sep. contact and measurement portions. The contact portion is positioned at or proximate to a first end of the **absorbent** material. The measurement portion has a receptor for a conjugate of an **analyte** analog and marker-encapsulating liposomes. The measurement portion has an electrochem. detection means, e.g., an electrode.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(liposome-enhanced immunoaggregation assay and app.)

L19 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:774831 HCAPLUS
DOCUMENT NUMBER: 123:164647
TITLE: Interrupted-flow assay device
INVENTOR(S): Chandler, Howard M.
PATENT ASSIGNEE(S): Smithkline Diagnostics, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9516208	A1	19950615	WO 1994-US14004	19941206
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5468648	A	19951121	US 1993-163341	19931207
AU 9513008	A1	19950627	AU 1995-13008	19941206
AU 684585	B2	19971218		
EP 733211	A1	19960925	EP 1995-904245	19941206
EP 733211	B1	19980513		
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 09506177	T2	19970617	JP 1994-516281	19941206

PRIORITY APPLN. INFO.: US 1993-163341 A 19931207
US 1991-706639 A2 19910529
US 1992-888831 B2 19920527
US 1993-40430 A2 19930331
WO 1994-US14004 W 19941206

AB The present invention provides chromatog. **assay devices** that can perform multiple **assays** simultaneously in the same test strip, as well as methods for their use. One of the **assays** can be an immunol. **assay** to detect an antigen, such as human chorionic gonadotropin, while another **assay** can be a serol. **assay** to detect an antibody, such as antirubella antibody. An **assay device** according to the present invention can comprise: (1) a first opposable component including at least one chromatog. medium having a specific binding partner to the first **analyte** and a specific binding partner to the second **analyte immobilized** thereto in sep., discrete, non-overlapping zones; and (2) a second opposable component including an **absorber**. The first and second opposable components are configured such that bringing the first and second opposable components into opposition causes the **absorber** to come into operable contact with at least one chromatog. medium so that the zone contg. the specific binding partner to the first **analyte** is functionally divided from the zone contg. the specific binding partner to the second **analyte** so that both **analytes** can be detected.

IT **9004-70-0, Nitrocellulose**
RL: NUU (Other use, unclassified); USES (Uses)
(interrupted-flow assay app. for antibody and antigen detn.)

L19 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:758978 HCAPLUS
DOCUMENT NUMBER: 123:138144
TITLE: Assay device with a barrier for regulating reagent application
INVENTOR(S): Chandler, Howard M.
PATENT ASSIGNEE(S): Smithkline Diagnostics, Inc., USA
SOURCE: PCT Int. Appl., 185 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9516207	A1	19950615	WO 1994-US13982	19941206
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
US 5607863	A	19970304	US 1993-163860	19931207
AU 9512659	A1	19950627	AU 1995-12659	19941206
AU 692205	B2	19980604		
EP 733210	A1	19960925	EP 1995-903681	19941206
R: BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
JP 09506434	T2	19970624	JP 1994-516271	19941206

PRIORITY APPLN. INFO.: US 1993-163860 A 19931207
US 1991-706639 A2 19910529

US 1992-888831 B2 19920527
US 1993-40430 A2 19930331
WO 1994-US13982 W 19941206

AB An **assay device** for detection and/or detn. of an **analyte** in a test sample uses a barrier contg. an aperture to control the application of reagents to the **device** for greater reproducibility of results. In its simplest form, the **device** comprises: (1) a chromatog. medium having a first end, a second end, and first and second surfaces, and having a specific binding partner for the **analyte immobilized** thereto in a detection zone; (2) at least one **absorber** in operable contact with at least one of the first and second ends; and (3) a substantially fluid-impermeable barrier adjacent to the first surface of the chromatog. medium, the barrier having at least one aperture through it for application of liq. to the chromatog. medium, the barrier at least partially blocking application of liq. to the chromatog. medium. The **device** can be adapted for sandwich or competitive (immuno)**assays** and can be used to perform amplified **assays**, such as those using silver amplification or enzyme amplification. Various arrangements of components within the **device** are possible, and elements such as filters can be accommodated. Examples are given of the detn. of human chorionic gonadotropin in urine by enzyme immunochromatog. and of Giardia in feces and of Streptococcus A on swabs by immunochromatog.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(assay app. with barrier for regulating reagent application)

L19 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:25491 HCAPLUS
DOCUMENT NUMBER: 120:25491
TITLE: Fingerprint test pad and method for fingerprinting using particle based immunoassay
INVENTOR(S): Guirguis, Raouf A.
PATENT ASSIGNEE(S): Lamina Ltd., USA
SOURCE: U.S., 21 pp. Cont.-in-part of U.S. Ser. No. 668,115.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5244815	A	19930914	US 1991-759922	19910913
JP 2000026163	A2	20000125	JP 1999-55593	19911227
WO 9306486	A1	19930401	WO 1992-US7785	19920914
W: AU, CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
AU 9226643	A1	19930427	AU 1992-26643	19920914
EP 643834	A1	19950322	EP 1992-920466	19920914
EP 643834	B1	20000816		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, SE				
JP 07503536	T2	19950413	JP 1992-506167	19920914
AT 195587	E	20000915	AT 1992-920466	19920914

US 6352863	B1	20020305	US 1997-788343		19970127
AU 9714931	A1	19970522	AU 1997-14931		19970226
PRIORITY APPLN. INFO.:			US 1990-467532	A2	19900119
			US 1991-668115	A2	19910312
			US 1991-759922	A2	19910913
			JP 1992-506167	A3	19911227
			WO 1992-US7785	A	19920914
			US 1993-118268	B2	19930909
			US 1993-123077	B1	19930917
			US 1995-484845	B1	19950607

AB A method and **device** are provided for testing for the presence of substances such as drugs in body fluids while simultaneously pos. identifying the test subject. The **device** comprises an **absorbent** pad and a **membrane** mounted thereon contg. a plurality of sep. zones provided with different **immobilized** antigens (e.g. drugs) and a control zone contg. **immobilized** anti-species antibody. A body fluid sample from the subject is mixed with antibodies to the various **analytes**, and the mixt. is applied to the zones on the **membrane**. A finger of the same subject is coated with a labeled antibody which specifically binds to the anti-**analyte** antibodies and the anti-species antibody and applied to the control and test zones on the **membrane**. The presence of label in a zone indicates the absence of the corresponding **analyte** in the body fluid. Thus, a saliva sample from a subject was incubated with mouse antibody to benzoylecgonine and applied to a **device** having zones contg. polystyrene latex coated with either goat anti-mouse IgG or a human serum albumin-benzoylecgonine conjugate. The thumb of the subject was painted with goat anti-mouse IgG conjugated to colloidal Au and pressed onto the zones on the **device**. After washing the **device**, the **membrane** was removed for reading.

L19 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1992:124357 HCAPLUS
DOCUMENT NUMBER: 116:124357
TITLE: Device and method for electrochemical immunoassay
INVENTOR(S): Joseph, Jose P.; Madou, Marc J.
PATENT ASSIGNEE(S): Optical Systems Development Partners, USA
SOURCE: PCT Int. Appl., 60 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9116630	A1	19911031	WO 1991-US2484	19910411
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
PRIORITY APPLN. INFO.:			US 1990-508307	19900412

AB A specific binding **assay device** and method are described, having a matrix which provides for incorporation of a defined vol. of liq. sample, .gtoreq.2 electrodes, a reversibly inactivated enzyme, a first binding partner specific for binding with the

analyte in the sample, and a second binding partner which competes with the **analyte** for binding to the first binding partner or binds to the **analyte**, which is labeled with an agent capable of reversing the reversible inactivation. Upon hydration with a sample, the **analyte** and second binding partner compete for binding with the first binding partner. Labeled binding partner which does not bind to the **immobilized** binding partner is able to diffuse to the enzyme, where it reactivates the enzyme and thus produces an elec. signal. A sputtered Ag/Pt 2-electrode cell set-up and **equipment** for cyclic voltammetric measurements was used to measure theophylline. Anti-theophylline monoclonal antibody: FAD-theophylline conjugate complex was **immobilized** in polyacrylamide formed on Whatman 1 filter paper and apoglucose oxidase (apoGO) was **absorbed** into the paper. A benzoquinone-glucose-NaN3 soln. was added to the electrode to wet the surface. The **membrane**/filter paper was inserted into the cell, apoGO side down, to fit snugly against the electrode surface. Phosphate buffer and theophylline solns. were applied to the **membrane**. Dose-dependent current increases were obsd. with theophylline addn.: 19% for 10 .mu.M theophylline and .ltoreq.650% for 100 .mu.M theophylline with a response time of <30 s.

L19 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:445703 HCAPLUS
DOCUMENT NUMBER: 115:45703
TITLE: Bioanalytical detection system and method, and use thereof in the immunochemical determination of progesterone
INVENTOR(S): Schramm, Willfried
PATENT ASSIGNEE(S): University of Michigan, USA
SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9105262	A1	19910418	WO 1990-US5511	19900927
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
AU 9067533	A1	19910428	AU 1990-67533	19900927
PRIORITY APPLN. INFO.:			US 1989-416160	19891002
			WO 1990-US5511	19900927

AB A **device** for detecting the presence of org. mol. **analytes** (drugs, hormones, etc.) in a fluid comprises (I) a 1st binding component with a predetd. 1st affinity for specifically reversibly binding an **analyte**, (2) a mol. conjugate of **analyte** and a signal-generating mol., and (3) a 2nd binding component having a predetd. 2nd affinity for reversibly binding the signal-generating mol. In the presence of **analyte**, a fluid conducting system allows competitive binding of the **analyte** with the **analyte** -signal generating mol. conjugate, causes displacement of the conjugate, and conducts the displaced conjugate to the 2nd binding component. The

signal-generating mol. generates a detectable signal distinguishing binding thereof at the 1st or 2nd binding components, thereby indicating the presence of the **analyte** in the fluid. The 1st and 2nd binding components may be antibodies, lectins, receptors, RNA, etc. Schematic diagrams of embodiments of the **device** are included. The **device** and method of the invention were used to det. progesterone (I). A monoclonal antibody (MAb) to I was **immobilized** on the surface of a polyacrylamide rod, and another MAb, specifically recognizing horseradish peroxidase (HRP) was **immobilized** on a polystyrene test tube. A I-HRP conjugate was prepd. Into each of a no. of the above test tubes, each contg. a rod (above), was added conjugate and a known amt. of I (12.5 pg-10 ng). Following incubation, the tubes with the rods were washed, sepd., and incubated with a reagent soln. for color development. Std. curves are included.

L19 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:420552 HCAPLUS
DOCUMENT NUMBER: 113:20552
TITLE: Methods and devices for (immuno)chromatographic analysis and their use
INVENTOR(S): Ghazarossian, Vartan; Shanafelt, Armen B.; Skold, Carl N.; Ullman, Edwin F.
PATENT ASSIGNEE(S): Syntex (U.S.A.), Inc., USA
SOURCE: Eur. Pat. Appl., 30 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 342913	A2	19891123	EP 1989-304913	19890516
EP 342913	A3	19910116		
EP 342913	B1	19950823		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, SE				
US 5039607	A	19910813	US 1988-194708	19880517
JP 02049161	A2	19900219	JP 1989-120600	19890516
JP 3009155	B2	20000214		
CA 1334164	A1	19950131	CA 1989-599875	19890516
ES 2075851	T3	19951016	ES 1989-304913	19890516
US 5164294	A	19921117	US 1989-376723	19890707
US 5248619	A	19930928	US 1991-714791	19910613
US 5334513	A	19940802	US 1992-940137	19920903
US 5451507	A	19950919	US 1994-241307	19940510
US 5468647	A	19951121	US 1994-299860	19940901
US 5624809	A	19970429	US 1995-436053	19950505

PRIORITY APPLN. INFO.:
US 1988-194708 A 19880517
US 1989-376723 A3 19890707
US 1991-714791 A1 19910613
US 1992-940137 A1 19920903
US 1993-105271 B1 19930812
US 1994-241307 A3 19940510

AB The title methods e.g. comprise (1) binding a reagent in a 1st liq. medium to a 1st bibulous member zone in relation to the presence or amt. of **analyte** by contacting the 1st bibulous member zone with the medium under conditions where the 1st medium flows through or traverses the 1st bibulous member zone by capillary action; (2) **absorbing** a component in a 2nd liq. medium to a 2nd bibulous member zone in relation to the presence of the **analyte** in the 1st medium, by contacting a portion of the 1st bibulous member with the 2nd medium under conditions where the 2nd medium traverses, by capillary action, the 1st bibulous member zone and at least a portion of the 2nd bibulous member zone; and (3) detg. the distance the component traverses the 2nd bibulous member zone to det. the amt. of **analyte**, or detecting the component on at least a portion of the 2nd bibulous member to detect the **analyte**. When the **analyte** is only detected, the 1st bibulous member zone is caused to come into liq. receiving relationship with the 2nd bibulous member zone after the reagent is bound to the 1st bibulous member. Thus, a **device** was constructed which consisted of (1) a 1st bibulous member contg. an IgG-blocked **nitrocellulose membrane** and an **immobilized** monoclonal anti-fluorescein antibody capture pad, laminated on acetate film such that the 2 sections overlapped by 1 mm; (2) a blotting paper **absorbent** member; and (3) an **immobilized** digoxin 2nd bibulous member. The **device** was used to det. 0-4 ng digoxin/mL. During the **assay**, the 1st bibulous member was 1st in liq. receiving relationship with the **absorbent** member (sample uptake step), then in liq. receiving relationship with the 2nd bibulous member (quantitation step). Increasing digoxin concn. resulted in greater migration height obsd. on the quantitating strip. **Devices** are also described for detn. of MgCl2, NaIO3, and FeCl2.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(**membrane** of, in overlapping bibulous strip capillary action device for digoxin detn.)

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=> d stat que
L1          1951 SEA FILE=REGISTRY (ANTIBODIES/BI OR ANTIBODY/BI)
L2         91924 SEA FILE=REGISTRY (ANTIGEN/BI OR ANTIGENE/BI)
L3             5 SEA FILE=REGISTRY ANALYTE/BI
L4            33 SEA FILE=REGISTRY NITROCELLULOSE/BI
L8        352208 SEA FILE=HCAPLUS L1 OR ANTIBOD?
L9        584637 SEA FILE=HCAPLUS L2 OR ANTIGEN? OR AG
L10        29502 SEA FILE=HCAPLUS L3 OR ANALYTE?
L11        26306 SEA FILE=HCAPLUS L4 OR NITROCELLULOSE?
L15        45276 SEA FILE=HCAPLUS (APPARAT? OR DEVICE? OR EQUIPMENT?) (L)(?ASSAY
                 ? OR ANALY?)
L16         2457 SEA FILE=HCAPLUS L15 (L) L10
L17          469 SEA FILE=HCAPLUS L16 AND (L11 OR MEMBRANE?)
L18          145 SEA FILE=HCAPLUS L17 AND IMMOBIL?
L19           27 SEA FILE=HCAPLUS L18 AND ABSORB?
L20         1563 SEA FILE=HCAPLUS L15 (L)(L8 OR L9)
L21          324 SEA FILE=HCAPLUS L20 AND (L11 OR MEMBRANE?)
L22           29 SEA FILE=HCAPLUS L21 AND (IMMOBIL? AND ABSORB?)
L23           12 SEA FILE=HCAPLUS L22 NOT L19
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L23 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:364191 HCAPLUS
DOCUMENT NUMBER: 136:368439
TITLE: An **immunoassay apparatus** containing specific **antibody** **immobilized** on fiber filter to detect **antigen**
INVENTOR(S): Kariyama, Hidesato
PATENT ASSIGNEE(S): Uma K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002139497	A2	20020517	JP 2000-369228	20001030

AB An app. is provided to detect specific substances such as antigen. The app. is a small reaction container (13.5 x 16 x 11.5 mm3) in which multi-layers of fiber filters **immobilized** with or without antigen specific antibody (first antibody) are filled on the top of the absorption layer. The sample antigen followed by specific antibody (second antibody) are loaded resp. to the app. and are **absorbed** to the fiber filter; the concn. of antigen can be measured by colonizing the antigen-antibody complex on the fiber filter with loading gold or fluorescein labeled antibody against the second antibody.

L23 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2002:294189 HCAPLUS
DOCUMENT NUMBER: 136:306390
TITLE: Immunoassay device and immunoassay method using the same
INVENTOR(S): Saruta, Hiroko; Hasegawa, Akira; Ashihara, Yoshihiro; Ishioka, Yuko; Isomura, Mitsuo
PATENT ASSIGNEE(S): Fujirebio Inc.(Fujirebio Kabushiki Kaisha), Japan
SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 706,686, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002045278	A1	20020418	US 2000-492191	20000127
JP 09133681	A2	19970520	JP 1996-260301	19960909
JP 3284896	B2	20020520		

JP 09133682	A2	19970520	JP 1996-260320		19960909
JP 3248436	B2	20020121			
JP 09229938	A2	19970905	JP 1996-352593		19961216
PRIORITY APPLN. INFO.:			JP 1995-256756	A	19950908
			JP 1995-256757	A	19950908
			JP 1995-348528	A	19951220
			US 1996-706686	B2	19960906

AB Disclosed are an **immunoassay device** which comprises a labeled substance dotting portion and a specimen dotting portion provided thereon, and an **immunoassay** method using the **device**. **Devices** were prepd. for detection of HBs **antigen**, Hb, and **antibodies** to Treponema pallidum, resp.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(immunoassay device and immunoassay method using same)

L23 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:803148 HCAPLUS
DOCUMENT NUMBER: 134:323032
TITLE: Rapid electric field **immobilizing** liquid phase molecule dot blot analysis
AUTHOR(S): Zou, Jing
CORPORATE SOURCE: Department of Otolaryngology, Bethune International Peace Hospital, Shijiazhuang, 050082, Peop. Rep. China
SOURCE: Mianyixue Zazhi (2000), 16(5), 376-379
CODEN: MIZAED; ISSN: 1000-8861
PUBLISHER: Mianyixue Zazhi Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB An anti-surfactant influence, rapid, and easy immune test method for screening **antibody** clin. and **analyzing** protein expression in basic research was presented. Several samples were quickly **absorbed** to **nitrocellulose** (NC) **membrane** under elec. field in a special **equipment** filled with NC **membrane**, and then an immune **assay** was applied to detect the proteins, and it was called as rapid elec. field **immobilizing** liq. phase mol. dot blot anal. (REILMD). The linear quality, interference factors, and sensitivity were tested. It was used to screen anti-inner ear autoantibody in auto immune diseases and to **analyze** the expression of bFGF, FGFR, NFkB, and IGF1R in inner ear. There was a good linear relation between color response gray value and logarithm of diln. of **antibody** (.gamma. = 0.995, P <0.000 1). The test results were not affected by 6.4% SDS. The sensitivity was 23 ng of protein. The mol. can not be detected in the presence of >99.86% interference proteins. Anti-inner ear autoantibody was 31% (5/16) in SLE, 5% (1/19) in rheumatoid arthritis and ankylosing spondylitis, and 2% (1/48) in non-autoimmune disease control group. BFGF, FGFR NFkB, and IGF1R were expressed in guinea pig inner ear. The results showed that REILMD may be an anti-surfactant influence and highly effective immune test method.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); ANST (Analytical study)
(rapid elec. field **immobilizing** liq. phase mol. dot blot anal.)

L23 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:511316 HCAPLUS
DOCUMENT NUMBER: 131:156911
TITLE: Device and method to detect immunoprotective antibody titers
INVENTOR(S): Cutting, John A.
PATENT ASSIGNEE(S): Synbiotics Corp., USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9940438	A1	19990812	WO 1999-US1511	19990125

W: JP
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.: US 1998-18072 19980203

AB A method for detg. the presence of an immunoprotective level of an **antibody** in a vertebrate comprises applying a blood sample from the vertebrate to a chromatog. **device** and allowing the sample to move through a first and second detection zones on the **device**. The first detection zone contains an amt. of **antigen** capable of binding to an amt. of **antibody** corresponding to a min. immunoprotective level of the **antibody**. The presence of the target **antibody** in the second detection zone indicates an immunoprotective level of **antibody**. A class of high sensitivity signal-generating conjugates contg. dextran-avidin polymer carrier is provided which is used as internal std. in another **assay** method of the invention. A method and system for detg. the immune status of a vertebrate and for automatically formulating a customized multicomponent vaccine is provided.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:468711 HCAPLUS
DOCUMENT NUMBER: 131:85133
TITLE: Transport flow matrix method, device and test kit for biospecific analytical reactions using two or more application positions for reagents and sample
INVENTOR(S): Mendel-Hartvig, Ib; Zelikman, Ilya; Rundstrom, Gerd
PATENT ASSIGNEE(S): Pharmacia & Upjohn Diagnostics AB, Swed.
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Swedish
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9936776	A1	19990722	WO 1998-SE2463	19981230
W: AU, CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2315686	AA	19990722	CA 1998-2315686	19981230
AU 9920833	A1	19990802	AU 1999-20833	19981230
EP 1044372	A1	20001018	EP 1998-965359	19981230
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

PRIORITY APPLN. INFO.: SE 1997-4934 A 19971230
WO 1998-SE2463 W 19981230

AB The invention concerns a transport flow matrix method and **device** for performing **assays** based on biospecific reactions by **immobilizing** the anal. reagent in the detection zone and applying sample, detectable reagent, and buffer(s) at the application zones. Buffers and detectable reagent can be applied simultaneously or sequentially; sandwich **assays** or competitive **assays** can be performed. Calibrator zone or zones are comprised in which a calibrator substance is bound. Matrixes are hydrophilic porous materials in the form of monoliths, sheets, columns, **membranes**, single flow channels etc.; nylon, **nitrocellulose membranes** are preferred. Transport flow through the matrix may be achieved by the action of capillary forces, e.g. by starting with a substantially dry matrix; a sucking **device** may be placed at the end of the flow; an elec. field may be applied across the matrix. Examples of specific binding pairs are immunol. binding pairs such as **antigen-antibody**, hapten-**antibody**, biotin-avidin or streptavidin, lectin-sugar, hormone-hormone receptor, nucleic acid duplex. Samples are body fluids, e.g blood, urine, cerebrospinal fluid, tear, saliva; they may be pretreated before application onto the flow matrix. Thus phenyldextran was **absorbed** onto 0.40 .mu.m polystyrene particles; the particles were used to **immobilize** anti-human IgE **antibody** (anti-hIgE); these particles were deposited as detection zone onto a **nitrocellulose** sheet. Anti-hIgE was conjugated to carbon particles for usage as detectable reagent. Four application zones were formed on the **nitrocellulose** sheet using Inplastor strips at predetd. distances. The prepd. sheet was mounted on a plane holder; a sucking **membrane** was placed at the top of the sheet. For simultaneous application, a 4 channel multipipette was used; the sample was nearest to the detection zone, followed by buffer, carbon particle-hIgE **antibody** conjugate, and buffer. IgE with added std. concns. in plasma was detected. The invention also concerns a test kit contg. all the necessary components to carry out **assays** using the method.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); USES (Uses)
(transport flow matrix method, device and test kit for biospecific anal. reactions using two or more application positions for reagents and sample)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:359734 HCAPLUS
DOCUMENT NUMBER: 131:2505
TITLE: Enzyme substrate delivery and product registration in one-step enzyme immunoassays
INVENTOR(S): Nelson, Alan M.; Pawlak, Jan W.; Pronovost, Allan D.
PATENT ASSIGNEE(S): Quidel Corporation, USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9927364	A1	19990603	WO 1997-US23135	19971204
W: JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6306642	B1	20011023	US 1997-977183	19971124
US 2002025541	A1	20020228	US 2001-943031	20010829

PRIORITY APPLN. INFO.: US 1997-977183 A 19971124

AB One-step enzyme **immunoassays** and app. are disclosed in which enzyme-**antibody** conjugate or label and enzyme substrate are sepd. until sepn. of bound and free enzyme conjugate or label is complete. This sepn. is accomplished by using variable flow paths, **immobilization** of substrate at the test line, placement of substrate in a sac or assocn. with a particle label, enzyme product chem. capture, delay zone dissoln. and protected enzyme substrates. Enzyme substrate-loaded liposomes were prepd. from cholesterol, distearoyl phosphatidylcholine, and distearoyl phosphatidylethanolamine-(p-maleimidophenyl)butyrate and conjugated with anti-human chorionic gonadotropin (hCG) monoclonal **antibody** derivatized with SPDP. In a lateral flow one-step enzyme **immunoassay device**, capture zone **membranes** contained anti-hCG **antibody** conjugated with phospholipase or complement C1q.

IT **9004-70-0, Nitrocellulose**
RL: ARU (Analytical role, unclassified); DEV (Device component use); ANST (Analytical study); USES (Uses)
(**membranes**, in immunoassay device; enzyme substrate delivery and product registration in one-step enzyme immunoassays)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:113499 HCAPLUS
DOCUMENT NUMBER: 130:136298
TITLE: Immunoassay method, device, and kit for simultaneous determination of verotoxin-producing Escherichia coli, verotoxin, and hemoglobin
INVENTOR(S): Okada, Keisaku; Mori, Kenjiro; Senda, Shuji
PATENT ASSIGNEE(S): Nitto Denko Corporation, Japan
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 896223	A1	19990210	EP 1998-113619	19980722
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11051939	A2	19990226	JP 1997-213177	19970807
US 2001009765	A1	20010726	US 1998-120192	19980722
US 6391652	B2	20020521		
US 2002086339	A1	20020704	US 2002-35156	20020104

PRIORITY APPLN. INFO.: JP 1997-213177 A 19970807
US 1998-120192 A3 19980722

AB An **immunoassay** method comprises bringing an **immobilized** phase comprising, at different positions on a water-**absorbable** base material, at least two first immunity substances capable of specifically binding with at least two kinds of **assay** target substances selected from the group consisting of O157 verotoxin-producing Escherichia coli (VTEC), verotoxin (VT), and human Hb contained in a test sample, into contact with a test sample and a liq. contg. labeled immunity substances each comprising a second immunity substance that is labeled with colored particles and capable of binding with the **assay** target substance, thereby to form an **assay** target substance-labeled immunity substance complex and to bind the complex with resp. first immunity substances at the **immobilized** phase. The **immunoassay** method, the **immunoassay device** and the **immunoassay** kit of the present invention enable easy and simultaneous anal. of VTEC, VT and Hb in a test sample, by adsorption of the **assay** target substances on an **immobilized** phase and evaluation of the developed color. **Antibodies** to VTEC, VT, and Hb were **immobilized** at different locations on a **nitrocellulose membrane**. The **membrane** was treated with bovine serum albumin and polyoxyethylene octylphenylether and dried. A polyester film was adhered to the back side of the **membrane** and a polyester nonwoven fabric was adhered to the end opposite from where the **antibodies** were applied. Test samples were mixed with blue, green, and red colored latex-labeled **antibodies** and added dropwise to the test strip polyester fabric. The presence or absence of color development in 20 min was visually obsd.

IT **9004-70-0, Nitrocellulose**
RL: ARG (Analytical reagent use); DEV (Device component use); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(**antibodies immobilized** on; **immunoassay** method and **device** and kit for simultaneous detn. of verotoxin-producing Escherichia coli and verotoxin and Hb)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L23 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:675123 HCAPLUS

DOCUMENT NUMBER: 129:272652
TITLE: Analytical device for **membrane**-based assays
INVENTOR(S): Chu, Albert E.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 35 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9843083	A1	19981001	WO 1998-US5373	19980318
W: CA, CN, JP, MX				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5885526	A	19990323	US 1997-823936	19970325
EP 988546	A1	20000329	EP 1998-910493	19980318
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2001525063	T2	20011204	JP 1998-545796	19980318

PRIORITY APPLN. INFO.: US 1997-823936 A 19970325
WO 1998-US5373 W 19980318

AB Methods of making anal. assay devices and methods of using the devices in anal. assays, such as immunoassays, are described. The anal. assay device comprises a liq.-impervious top support layer that defines a rim around an open port, and a porous reaction **membrane** that is proximal to the top support layer, such that a portion of the upper surface of the reaction **membrane** and rim define a sample receiving well. The upper surface of the reaction **membrane** is sealed to the lower surface of the top support layer by a water-insol. adhesive, which forms a liq.-impervious seal there between. An **absorbent** body is proximal to and in liq. communication with the lower surface of the reaction **membrane**. The anal. assay device is used for the detection of a bindable target substance in a liq. sample potentially contg. the target substance. Anal. devices were prepd. for immunoassay of IgG.

IT **9004-70-0, Nitrocellulose**
RL: DEV (Device component use); USES (Uses)
(reaction **membrane** of; anal. device for **membrane** -based assays)

L23 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:158188 HCAPLUS
DOCUMENT NUMBER: 120:158188
TITLE: Reagents and kits for determination of fetal fibronectin in a vaginal sample
INVENTOR(S): Senyei, Andrew E.; Teng, Nelson N. H.
PATENT ASSIGNEE(S): Adeza Biomedical Corp., USA
SOURCE: U.S., 19 pp. Cont.-in-part of U.S. Ser. No. 274,268, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5281522	A	19940125	US 1990-628282	19901214
US 5096830	A	19920317	US 1988-244969	19880915
US 5223440	A	19930629	US 1988-274267	19881118
US 5185270	A	19930209	US 1988-282426	19881212
CA 2098180	AA	19920614	CA 1991-2098180	19911209
WO 9210585	A1	19920625	WO 1991-US9259	19911209
W: AU, CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
AU 9191321	A1	19920708	AU 1991-91321	19911209
EP 563165	A1	19931006	EP 1992-901573	19911209
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
JP 06503645	T2	19940421	JP 1992-502401	19911209

PRIORITY APPLN. INFO.:

US 1988-244969	19880915
US 1988-274267	19881118
US 1988-274268	19881118
US 1988-282426	19881212
US 1987-121894	19871117
US 1987-121895	19871117
US 1987-121899	19871117
US 1987-121900	19871117
US 1990-628282	19901214
WO 1991-US9259	19911209

AB Methods, reagents, and kits are described for detection of normal or ectopic pregnancy, the termination of pregnancy, or increased risk of preterm labor and rupture of **membranes**. Each embodiment involves sampling from the vaginal cavity and detg. the presence or absence of fetal fibronectin in the test sample by sandwich or competitive **immunoassay**. Reagents and reagent kits for the above **assays** are included. The kit contains anti-(fetal fibronectin) **antibody** and an anti-fibronectin **antibody**, 1 of which is **immobilized**, and a **device** for collection, filtration, and/or diln. of vaginal samples. Thus, a kit comprised (1) a plastic housing contg. a monoclonal anti-(fetal fibronectin) **antibody immobilized** on a porous nylon **membrane**, a flow control **membrane** system, and an **absorbent** layer, (2) a colloidal Au-labeled goat anti-fibronectin **antibody** conjugate in a protein matrix, (3) conjugate reconstitution buffer, (4) wash soln., and (5) a sterile sample collection swab. A pos. result was shown by a pink or red spot in the test zone of the **membrane**.

L23 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1993:97530 HCAPLUS
DOCUMENT NUMBER: 118:97530
TITLE: Process and device for specific binding assay
INVENTOR(S): Yamauchi, Tadakazu; Sugihara, Keisuke; Sato, Hiroshi; Kanamori, Toshinori
PATENT ASSIGNEE(S): Mochida Pharmaceutical Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 65 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 516095	A2	19921202	EP 1992-108971	19920527
R: DE, FR, GB, NL				
JP 04351962	A2	19921207	JP 1991-126189	19910529
CA 2069833	AA	19921130	CA 1992-2069833	19920528

PRIORITY APPLN. INFO.: JP 1991-126189 19910529

AB Chromatog. test **devices** and specific binding test processes are described in which a test sample can be measured with any desired detection sensitivity selected at will without requiring diln. of the sample. Urine human chorionic gonadotropin (hCG) was measured using an **assay device** having (A) a cellulose filter paper [chromatog.-type; 0.7 mm thick .times. 10 mm length (direction of liq. flow) .times. 17 mm width (vertical direction of liq. flow)] impregnated with phosphate-buffered saline (pH 6.4), albumin, and Tween 20, for loading a test sample at one end of the **device**; (B) 3 polyester nonwoven fabric strips (10 .times. 5 mm, 0.5 mm thick) placed side-by-side and impregnated with a mixt. contg. Foron Brilliant Blue-labeled monoclonal anti-hCG .beta.-chain **antibody** and 0 or increasing amts. of unlabeled monoclonal anti-hCG.beta. **antibody**, for locating specific binding substances; (C) 3 **nitrocellulose** films (pore size 5 .mu.m; 25 .times. 5 mm; thickness 0.16 mm) placed side-by-side, each with a spot of rabbit polyclonal anti-hCG **antibody** and blocked with albumin, for locating a detecting element; and (D) a cellulose filter paper strip (10 .times. 17 mm; 0.8 mm thick), for **absorbing** liqs. The loading strip (A) contacted 1 end of each strip (B); the other end of (B) contacted 1 end of a strip (C); and each end of strips (C) contacted **absorbing** strip (D); all on an adhesive sheet used as a supporting material. The strip **device** was covered with a water-repellent paper and pressed lightly with a roller. A urine sample was added to loading strip (A); a color signal developed at .gtoreq.1 spots at (C) depending on the amt. of hCG in the sample. **Devices** and **assays** for serum .alpha.-fetoprotein, urine estriol, serum **antibody** to hepatitis B surface **antigen** (HBsAg), serum HBsAg, and urine LH are also described.

IT **9004-70-0, Nitrocellulose**
RL: ANST (Analytical study)
(films, anti-human chorionic gonadotropin antibodies **immobilized** at spot on, in immunoassay test strip app.)

L23 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1990:154780 HCAPLUS
DOCUMENT NUMBER: 112:154780
TITLE: Method and apparatus for carrying out chemical or biochemical reactions in porous carrier phases for analysis
INVENTOR(S): Sutherland, Ranald; Hybl, Eva; Bregnard, Andre; Place, John

PATENT ASSIGNEE(S): IntraCel Corp., Barbados
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 327786	A1	19890816	EP 1988-810081	19880211
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 01291163	A2	19891122	JP 1989-30042	19890210

PRIORITY APPLN. INFO.: EP 1988-810081 19880211

AB In a method of detg. a chem. or biochem. species in a sample by a signal-generating anal. reaction involving .gtoreq.2 reaction partners, 1 of which is the species or its deriv., 1 of the 2 partners is **immobilized** in a porous carrier matrix and the other is dissolved in a liq. which is passed through the carrier matrix, the anal. reaction occurs, and the consecutively generated signal is measured in the liq. at an output of the matrix. The liq. flows through the carrier at a rate which is controlled; the signal being a function of this rate as well as the amt. of species in the sample. A liq. channelling **device** for carrying out the method comprises an upper channel or vessel to which reagents are added, a porous solid body at the bottom capable of retaining .gtoreq.1 **immobilized** reagents and of allowing liqs. to pass through at a const. or variable rate of flow, a lower discharge channel at the output of the porous body for collecting the liqs. and discharging them from the orifice, and measuring means about the discharge channel for measuring .gtoreq.1 property of the collected liqs. before they are discharged. Low-d. lipoprotein (LDL) was detd. by a competitive **immunoassay** using such an app. contg. LDL **immobilized** on a reagent pad. Sample was mixed with anti-human apolipoprotein B100 mouse monoclonal **antibody**, the mixt. was incubated with the reagent pad for 5 min, and the pad was washed. Bound **antibody** was detd. using horseradish peroxidase-labeled anti-mouse IgG and o-phenylenediamine/H2O2. Transmission photometry was measured at 460 nm in the lower channel of the **device**. **Absorbance** decreased with increasing LDL.

L23 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:436238 HCAPLUS
DOCUMENT NUMBER: 111:36238
TITLE: A device and method for self-contained solid-phase immunodiffusion assay
INVENTOR(S): Bernstein, David
PATENT ASSIGNEE(S): New Horizons Diagnostics Corp., USA
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8804431	A1	19880616	WO 1987-US3169	19871201
W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US				
RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
US 4770853	A	19880913	US 1986-938003	19861203
AU 8810518	A1	19880630	AU 1988-10518	19871201
EP 293447	A1	19881207	EP 1988-900311	19871201
EP 293447	B1	19940831		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 01502054	T2	19890713	JP 1988-500684	19871201
US 5169789	A	19921208	US 1991-818439	19911227

PRIORITY APPLN. INFO.:

US 1986-938003	19861203
WO 1987-US3169	19871201
US 1988-262503	19880729

AB A **device** and method for a self-contained solid-phase immunodiffusion **assay** are comprised of a sample collector and a prefabricated laminate which can be used in many different forms. For example, the sample collector and laminate can be used with a tube having compartmentalized reagents. The seals can be broken through pressure on the sample collector. The sample collector is pushed through the seals, mixed with reagent, and then pushed into a ligand-receptor reaction area which is part of the laminate. The tip of the sample collector contacts diffusible porous **membranes** or filters and transfers the reactants to a capture **membrane** wherein a ligand-receptor reaction can be examd. visually or otherwise. Group C streptococcal phage-assocd. lysin (which fragments and solubilizes group A streptococcal polysaccharides) in citrate-phosphate buffer (pH 6.1) contg. rabbit IgG, EDTA, dithiothreitol, and NaN3 was mixed (3:1) with rabbit anti-streptococcal group A-coated Au sol particles (**absorbance** 1.5 at 518 nm) in Tris buffer (pH 8.2) contg. bovine serum albumin, Na heparin, N-acetylglucosamine, and NaN3. The combined reagent was sterile filtered, aliquoted into acrylic-walled reaction cup vessels having an Al foil-sealed bottom, frozen, and lyophilized. The vessels were sealed with Al foil and contact cement under N. Another reaction vessel was cemented to the Al foil lid of the 1st, distd. H2O was added, and the vessel was sealed with Al foil. The vessels were placed in a cylindrical tube above the ligand-receptor area having a diacetate laminate **membrane** with holes contg. **nitrocellulose membranes**, one coated with rabbit anti-group A streptococcal **antibody** (capture **membrane**) and the other coated with rabbit IgG (control). The **membranes** were covered by a 1.2-.mu.m cellulose acetate prefilter. A Dacron-tipped swab was seeded with group A streptococci, placed in a tube, and forced downward to break the 1st 2 seals of the reaction vessels. The swab was incubated for 4 min and then forced down through the 3rd seal into the lower portion. The fluid diffused through the prefilter into the capture and control **membranes**. After 30 s the tab on the ligand-receptor area was pulled away and examd. by eye. Group A streptococci at 2 .times. 103 organisms gave a distinct color reaction compd. to the colorless control **membrane**.